Report Date: 19 Apr 2013

Summary Report for Individual Task
031-627-4102
Develop Response Options at the Incident Command Level
Status: Approved

Condition: As an incident commander, given the Emergency Response Guidebook (ERG), National Institute for Occupational Safety and Health (NIOSH) Pocket Guide to Chemical Hazards and a known or unknown hazardous materials (HAZMAT) incident in various facility or transportation situations to chemical hazards. This task should not be trained in MOPP.

Standard: Develop response options at the incident command level by identifying the possible response options for a given response objective and the purpose of all the HAZMAT control techniques IAW NFPA 472.

Special Condition: None

Special Standards: None

Special Equipment:

Safety Level: Low

MOPP: Never

Task Statements

Cue: None

DANGER

None

WARNING

None

CAUTION

None

Remarks: None

Notes: None

Performance Steps

1. Identify the possible response options to accomplish a given response objective.

a. Offensive.

b. Defensive.

c. Nonintervention.

2. Identify the purpose of each of the following techniques for HAZMAT control:

a. Absorption: holds liquids in a material.

b. Adsorption: surface retention of certain solid, liquid, or gaseous molecules, which can cause an agent to stick to or become chemically attached to the exterior of another material, such as soil, activated charcoal, silica and Fullers Earth Clay).

c. Blanketing: the reduction or elimination of vapors emanating from a spilled or released material through the most efficient method or application of specially designed agents such as an aqueous foam blanket.

d. Covering: a temporary form of mitigation for radioactive, biological, and some chemical substances such as magnesium. It should be done after consultation with a certified health physicist.

e. Damming, Diking and Retention: the use of physical barriers to prevent or reduce the quantity of liquid flowing into the environment. Usually refers to concrete, earth, and other barriers temporarily or permanently constructed to hold back a spill or leak.

f. Dilution: the application of water to water miscible HAZMAT with the goal to reduce the hazard to safe levels.

g. Dispersion: dispersing or moving vapors by means of a water spray.

h. Diversion: methods used to physically change the direction of flow of the liquid.

i. Fire Suppression: the reduction or elimination of fire.

j. Neutralization: the process by which another chemical is applied to the original spill to form a less harmful by product through an energetic exothermic reaction, which can produce toxic and flammable vapors. Advantages include the considerable reduction in the release of harmful vapors, and the byproduct of the reaction can be disposed of at a low cost and effort.

k. Overpacking: a physical method of containment by placing a leaking or damaged container, drum, or vessel inside a larger, specially constructed container (compatible with the released material) to confine any further release of product. The container should be temporarily repaired before being placed inside the overpack.

l. Patching: the use of compatible plugs and patches to reduce or temporarily stop the flow of materials from small container shells, piping systems, and valves.

m. Plugging: inserting, driving, or screwing a chemically compatible object into the breach of a container to reduce or temporarily stop the flow.

n. Pressure Isolation and Reduction: flaring; venting; vent and burn; the isolation of valves, pumps or energy sources.

o. Retention: the use of physical barriers to prevent or reduce the quantity of liquid flowing into the environment.

p. Solidification: the process whereby a hazardous liquid is treated chemically so that a solid material results. Adsorbents can be considered an example of a solidification process. A small spill can be confined relatively quickly and treatment affected immediately.

q. Transfer: the process of moving a liquid, gas, or some solids, either manually, by pump, or by pressure, from a leaking or damaged container or tank. While complex and dangerous, it is accomplished by a technician (with a tank car specialty, cargo tank specialty, or intermodal tank specialty) or by a cleanup company or by personnel from the shipper or manufacturer.

r. Vapor Control (Dispersion or Suppression).

(1) Vapor Dispersion: dispersing or moving vapors from certain materials by means of a water spray.

(2) Vapor Suppression: use of solid activated materials to treat hazardous materials to suppress vapor off-gasing from the materials. This process results in the formation of a solid for easier handling but may result in a hazardous solid to be disposed of properly.

(Asterisks indicates a leader performance step.)

Evaluation Preparation: Setup: In a real or simulated HAZMAT incident, provide the Soldier with the items listed in the condition statement and direct the Soldier to develop response options.

PERFORMANCE MEASURES	GO	NO-GO	N/A
1. Identified the response options to accomplish a given response objective.			
a. Offensive.			
b. Defensive.			
c. Nonintervention.			
2. Identified the purpose of each of the following techniques for HAZMAT control:			
a. Absorption.			
b. Adsorption.			
c. Blanketing.			
d. Covering.			
e. Damming, Diking, and Retention.			
f. Dilution.			
g. Dispersion.			
h. Diversion.			
i. Fire Suppression.			
j. Neutralization.			
k. Overpacking.			
l. Patching.			
m. Plugging.			
n. Pressure Isolation and Reduction.			
o. Retention.			
p. Solidification.			
q. Transfer.			
r. Vapor Control (Dispersion or Suppression).			

Supporting Reference(s):

Step Number	Reference ID	Reference Name	Required	Primary
	ERG 2008	Emergency Response Guidebook 2008: A Guidebook For First Responders During The Initial Phase Of A Dangerous Goods/Hazardous Materials Transportation Incident.	Yes	Yes
	NFPA 472 2008 ED	National Fire Protection Association, Standard for Competence of Responders to Hazardous Materials/Weapons of Mass Destruction Incidents, 2008 Ed	No	No
	NIOSH 2005-149	National Institute of Occupational Safety & Health (NIOSH) Guide to Chemical Hazards	Yes	Yes

Environment: Environmental protection is not just the law but the right thing to do. It is a continual process and starts with deliberate planning. Always be alert to ways to protect our environment during training and missions. In doing so, you will contribute to the sustainment of our training resources while protecting people and the environment from harmful effects. Refer to FM 3-34.5 Environmental Considerations and GTA 05-08-002 Environmental-Related Risk Assessment.

Safety: In a training environment, leaders must perform a risk assessment in accordance with FM 5-19, Composite Risk Management. Leaders will complete a DA Form 7566 COMPOSITE RISK MANAGEMENT WORKSHEET during the planning and completion of each task and sub-task by assessing mission, enemy, terrain and weather, troops and support available-time available and civil considerations, (METT-TC). Note: During MOPP training, leaders must ensure personnel are monitored for potential heat injury. Local policies and procedures must be followed during times of increased heat category in order to avoid heat related injury. Consider the MOPP work/rest cycles and water replacement guidelines IAW FM 3-11.4, NBC Protection, FM 3-11.5, CBRN Decontamination. In a training environment, leaders must perform a risk assessment IAW FM 5-19, Composite Risk Management. Leaders will complete a DA Form 7566 Composite Risk Management Worksheet during the planning and completion of each task and sub-task by assessing mission, enemy, terrain and weather, troops and support available-time available, and civil considerations, (METT-TC). Note: During MOPP training, leaders must ensure personnel are monitored for potential heat injury. Local policies and procedures must be followed during times of increased heat category in order to avoid heat related injury. Consider the MOPP work/rest cycles and water replacement guidelines IAW FM 3-11.4, NBC Protection, FM 3-11.5, CBRN Decontamination.

Prerequisite Individual Tasks : None

Supporting Individual Tasks : None

Supported Individual Tasks : None

Supported Collective Tasks :

Task Number	Title	Proponent	Status
03-1-6592	Establish A CBRN Incident Response Operations Center	03 - CBRN (Collective)	Approved

ICTL Data :

ICTL Title	Personnel Type	MOS Data
CBRN SLC, 2011	Enlisted	MOS: 74D, Skill Level: SL4